Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A method of controlling a dissolution rate of a bioactive agent, the method comprising:

selecting a target dissolution rate for a plurality of substantially uniformly sized dots, the dots comprising the bioactive agent;

adjusting one or more deposition characteristics of the plurality of substantially uniformly sized dots to control the dissolution rate;

applying ~~a bioactive agent~~ the plurality of substantially uniformly sized dots to a delivery substrate ~~as a plurality of substantially uniformly sized dots~~ to attain the ~~selected~~ target dissolution rate.

2. (Currently amended) The method of claim 1, wherein applying the plurality of substantially uniformly sized dots ~~bioactive agent~~ to the delivery substrate includes heating a solution including the bioactive agent with a thermal ejection element.

3. (Currently amended) The method of claim 1, wherein applying the plurality of substantially uniformly sized dots ~~bioactive agent~~ to the delivery substrate includes displacing a solution including the bioactive agent with a piezoelectric ejection element.

4. (Original) A method of controlling a dissolution rate of a bioactive agent, the method comprising:

selecting a desired dot size corresponding to a target dissolution rate;

applying a bioactive agent to a delivery substrate in drops of solution configured to form dots having the desired dot size on the delivery substrate.

5. (Original) The method of claim 4, wherein a volume of each of the drops is less than approximately 1×10^{-9} liters.

6. (Original) The method of claim 4, wherein a volume of each of the drops is less than approximately 1×10^{-11} liters.

7. (Original) The method of claim 4, wherein a volume of each of the drops is in the range of approximately 10×10^{-12} liters and 70×10^{-12} liters.

8. (Original) The method of claim 4, wherein the dots are substantially uniformly sized.

9. (Original) The method of claim 4, wherein a standard deviation of drop volume is less than approximately 15% of a mean drop volume.

10. (Original) The method of claim 4, further comprising selecting a second desired dot size corresponding to the target dissolution rate; and

applying the bioactive agent to the delivery substrate in drops of solution configured to form dots having the second desired dot size on the delivery substrate.

11. (Original) The method of claim 10, wherein a standard deviation of drop volume of drops used to form dots having the second desired dot size is less than approximately 15% of a mean drop volume of drops used to form dots having the second desired dot size.

12. (Original) The method of claim 4, wherein applying the bioactive agent to the delivery substrate includes heating the solution including the bioactive agent with a thermal ejection element.

13. (Original) The method of claim 12, wherein the heated solution is applied via at least two nozzles sized to eject drops of solution having substantially the same volume.

14. (Original) The method of claim 12, wherein the heated solution is applied via at least a first nozzle set and a second nozzle set, wherein the first nozzle set includes a first plurality of nozzles configured to eject drops of solution having a first volume, and wherein the second nozzle set includes a second plurality of nozzles configured to eject drops of solution having a second volume different than the first volume.

15. (Original) The method of claim 4, wherein applying the bioactive agent to the delivery substrate includes displacing the solution including the bioactive agent with a piezoelectric ejection element.

16. (Original) The method of claim 15, wherein the displaced solution is applied via at least two nozzles sized to eject drops of solution having substantially the same volume.

17. (Original) The method of claim 16, wherein the displaced solution is applied via at least a first nozzle set and a second nozzle set, wherein the first nozzle set includes a first plurality of nozzles configured to eject drops of solution having a first volume, and wherein the second nozzle set includes a second plurality of nozzles configured to eject drops of solution having a second volume different than the first volume.

18. (Original) The method of claim 4, wherein a concentration of the bioactive agent in the solution is set to form dots having the desired dot size on the delivery substrate.

19.-31. (Canceled).

32. (Original) A method of controlling a dissolution rate of a bioactive agent, the method comprising:

setting an application parameter based on a target dissolution rate; and

applying a bioactive agent to a delivery substrate according to the application parameter to achieve the target dissolution rate.

33. (Original) The method of claim 32, wherein applying the bioactive agent to the delivery substrate includes ejecting an ejection solution including the bioactive agent onto the delivery substrate as a plurality of drops.

34. (Original) The method of claim 33, wherein each of the plurality of drops is sized to achieve the target dissolution rate.

35. (Original) The method of claim 34, wherein a volume of each of the plurality of drops is less than approximately 1×10^{-11} liters.

36. (Original) The method of claim 34, wherein a standard deviation of drop volume for the plurality of drops is less than approximately 15% of a mean drop volume of the plurality of drops.

37. (Original) The method of claim 32, wherein applying the bioactive agent to the delivery substrate includes heating an ejection solution including the bioactive agent with a thermal ejection element.

38. (Original) The method of claim 32, wherein applying the bioactive agent to the delivery substrate includes displacing an ejection solution including the bioactive agent with a piezoelectric ejection element.

39. (Original) The method of claim 32, wherein the bioactive agent is applied to the delivery substrate in an ejection solution including the bioactive agent and a carrier solvent.

40. (Original) The method of claim 32, wherein the application parameter is selected to effectuate a deposition characteristic of the bioactive agent on the delivery substrate, wherein the deposition characteristic affects the dissolution rate of the bioactive agent.

41. (Original) The method of claim 40, wherein the deposition characteristic is dot size.

42. (Original) The method of claim 40, wherein the deposition characteristic is dot geometric surface-to-mass ratio.

43. (Original) The method of claim 32, wherein the application parameter is one of a plurality of application parameters that collectively affect the dissolution rate of the bioactive agent.

44. (Original) The method of claim 32, wherein the application parameter includes nozzle size.

45. (Original) The method of claim 32, wherein the application parameter includes chamber size.

46.-48. (Canceled).

49. (New) The method of claim 1, wherein the one or more deposition characteristics comprise dot size, dot geometric surface area, dot mass, dot surface-to-mass ratio, dot topography, dot topographic surface area, dot geometry, dot layering, or combinations thereof.